Application No.: Not Yet Assigned

Docket No.: 3273-0203PUS1

JC17 Rec'd PCT/PTO 03 JUN 2005

AMENDMENTS TO THE CLAIMS

Claim 1 (original): An unsaturated carboxylic acid hemiacetal ester represented by the following formula (1);

wherein

 R^a is a hydrogen atom, a halogen atom, an alkyl group of carbon number 1 to 6 or a haloalkyl group of carbon number 1 to 6, R^b is a hydrocarbon group having a hydrogen atom at a first poison, R^c is a hydrogen atom or a hydrocarbon group and R^d is an organic group having a cyclic skeleton.

Claim 2 (original): An unsaturated carboxylic acid hemiacetal ester according to Claim 1, wherein a cyclic skeleton in \mathbb{R}^d is a lactone skeleton or a non-aromatic polycyclic skeleton.

Claim 3 (original): A process of producing an unsaturated carboxylic acid hemiacetal ester, wherein the unsaturated carboxylic acid hemiacetal ester represented by the following formula (5);

wherein

Ra is a hydrogen atom, a halogen atom, an alkyl group of carbon number 1 to 6 or a haloalkyl

2

Docket No.: 3273-0203PUS1

group of carbon number 1 to 6, R^c is a hydrogen atom or a hydrocarbon group, R^d is an organic group having a cyclic skeleton and each of R^c and R^f is a hydrogen atom or a hydrocarbon group; is obtained by allowing an unsaturated carboxylic acid represented by the following formula (3);

wherein

R^a is a hydrogen atom, a halogen atom, an alkyl group of carbon number 1 to 6 or a haloalkyl group of carbon number 1 to 6;

to react with a vinyl ether compound represented by the following formula (4);

$$\underset{R^{f}}{\overset{R^{c}}{\underset{R^{f}}{\bigcap}}} R^{d} \qquad (4)$$

wherein

 R^c is a hydrogen atom or a hydrocarbon group, R^d is an organic group having a cyclic skeleton and each of R^e and R^f is a hydrogen atom or a hydrocarbon group.

Claim 4 (original): A polymeric compound having a repeated unit represented by the formula (I);

3 MSW/sll

Docket No.: 3273-0203PUS1

wherein R^a is a hydrogen atom, a halogen atom, an alkyl group of carbon number 1 to 6 or a haloalkyl group of carbon number 1 to 6, R^b is a hydrocarbon group having a hydrogen atom at a first poison, R^c is a hydrogen atom or a hydrocarbon group and R^d is an organic group having a cyclic skeleton.

Claim 5 (original): A polymeric compound according to Claim 4, further having a repeated unit corresponding to at least one monomer selected from a monomer having a lactone skeleton, a monomer having a cyclic ketone skeleton, a monomer having an acid anhydride group and a monomer having an imide group; provided that except for a repeated unit represented by the formula (I).

Claim 6 (original): A polymeric compound according to Claim 4 or Claim 5, further having a repeated unit corresponding to at least one monomer selected from a monomer having a hydroxyl group, a monomer having a mercapto group and a monomer having a carboxyl group.

Claim 7 (currently amended): A photoresist resin composition containing at least a polymeric compound described in any one of Claim 4 to Claim 6 Claim 4 and a photo-acid generator.

Claim 8 (original): A process of producing a semi-conductor comprising

4 MSW/sll

Application No.: Not Yet Assigned Docket No.: 3273-0203PUS1

steps of coating a photoresist resin composition described in Claim 7 on a base or substrate to form a resist film and forming a pattern through exposure and development.

5 MSW/sll